

# Safety Data Sheet

**fluorochem.**

## 1. Identification of the substance/mixture

### 1.1 Product identification

Product name	2-(3,4-Epoxycyclohexyl)-ethyltriethoxysilane
Other names	(2-triethoxysilyl)ethyl)cyclohexyloxirane / (2-(7-Oxabicyclo[4.1.0]heptan-3-yl)ethyl)triethoxysilane / Triethoxy[2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl]-silane
Product code	S25145
CAS	10217-34-2
MDL	MFCD00069159
EINECS	425-050-4
REACH Registration number	

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant uses	For research and development purposes.
Uses advised against	No uses advised.

### 1.3 Safety Data Sheet supplier details

Company	Fluorochem Ltd
Address	Unit 14, Graphite Way Hadfield Glossop Derbys. SK13 1QH United Kingdom
Telephone	+44 1457 860111
Email	sds@fluorochem.co.uk

### 1.4 Emergency Telephone

Emergency Telephone	+44 20 3807 3798 (Poison Information)
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## 2. Hazard Identification

### 2.1 Classification of the substance or mixture

Classification	H315 Skin Irrit. 2 H319 Eye Irrit. 2 H335 STOT SE 3 H302 Acute Tox. 4
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## 2.2 Label Elements

Signal Word

**Warning**

Pictograms



**GHS07**

Hazards

**H315** Causes skin irritation.

**H319** Causes serious eye irritation.

**H335** May cause respiratory irritation.

**H302** Harmful if swallowed.

Precautions

**P101** If medical advice is needed, have product container or label at hand.

**P264** Wash hands thoroughly after handling.

**P271** Use only outdoors or in a well-ventilated area.

**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

**P362+P364** Take off contaminated clothing and wash it before reuse.

**P303+P361+P353** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

**P302+P352** IF ON SKIN: Wash with plenty of water and soap.

**P405** Store locked up.

**P301+P310** IF SWALLOWED: Immediately call a POISON CENTER/doctor.

**P270** Do not eat, drink or smoke when using this product.

**P280** Wear protective gloves/protective clothing and eye/face protection.

**P403+P233** Store in a well-ventilated place. Keep container tightly closed.

**P308+P313** IF exposed or concerned: Get medical advice/attention.

**P260** Do not breathe dust/fume/gas/mist/vapours/spray.

**P301+P330+P331** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**P304+P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**P321** Specific treatment (see Section 4 on this SDS).

**P501** Dispose of contents/container to hazardous waste disposal.

## 2.3 Other Hazards

Other Classification

Hazards

## 3. Composition

### 3.1 SUBSTANCE

Name	CAS	Einecs	Composition	Hazards
2-(3,4-Epoxycyclohexyl)-				

### 3.2 MIXTURE

Not applicable. Product is a substance.

## 4. First Aid Measures

### 4.1 Description of First Aid Measures

<b>Eye Contact</b>	Where Diphtherine is not available, rinse eyes with copious amounts of water for at least 20 minutes. Protect uninjured eye. Remove contact lenses if present and easy to do. Continue rinsing and seek immediate medical attention.
<b>Ingestion</b>	If swallowed rinse the mouth with plenty of water (only if the person is conscious) and contact a poison centre or physician if you feel unwell.
<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. Call a poison centre or physician if you feel unwell. If breathing is irregular or stopped, administer artificial respiration.
<b>Skin Contact</b>	Where Diphtherine is not available, wash immediately with plenty of water and soap. Remove contaminated clothing immediately. Immediately seek medical attention.
<b>General Advice</b>	No additional advice.

### 4.2 Most Important Symptoms and Effects

**Most Important Symptoms and Effects** No known symptoms or effects.

### 4.3 Indication of any urgent medical attention and special treatments needed

<b>Immediate First Aid Measures</b>	No special immediate treatment required.
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## 5. Fire Fighting Measures

### 5.1 Extinguishing Media

**Suitable Fire Extinguishing Media** Carbon dioxide, alcohol resistant foam or dry chemical powder., Use water to extinguish fire.

**Unsuitable Fire Extinguishing Media** No known unsuitable media.

### 5.2 Special hazards arising from the substance or mixture

**Special Hazards** Thermal decomposition can lead to release of irritating gases and vapours.

### 5.3 Recommendations for firefighting personnel

**Advice for Fire Fighters** As in any fire, wear self-contained breathing apparatus and full protective gear.

## 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Keep personnel away from spill/leak.
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### 6.2 Environmental Precautions

<b>Environmental Precautions</b>	Prevent further leakage if safe to do so. Prevent product from entering drains. Do not let product enter waterways or sewer systems. Discharge into the environment must be avoided.
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### 6.3 Containment and cleaning methods and materials

<b>Containment - Methods and Materials</b>	Absorb the spilled material with an inert absorbent (e.g. sand, silica gel, rag, vermiculite) before transferring into an airtight container. Remove all sources of ignition. Dispose of appropriately according to local regulations.
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### 6.4 References to other sections

<b>Referenced SDS Sections</b>	For personal protection see section 8. For disposal see section 13.
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## 7. Handling and Storage

### 7.1 Precautions for safe handling

<b>Safe Handling</b>	Wear appropriate personal protective equipment. Use only under a chemical fume hood. Keep away from heat/sparks/open flame/hot surfaces. Take measures to prevent the build-up of electrostatic charge. Ensure adequate exhaust ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing. For precautions see section 2.2.
<b>Protection Against Explosion and Fire</b>	Where possible, use anti static and spark proof equipment when handling.
<b>General Occupational Hygiene</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

### 7.2 Conditions for Safe Storage and Incompatibilities

<b>Managing Storage Risks</b>	Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.
<b>Storage Controls</b>	No special requirements.
<b>Maintaining Integrity</b>	Keep container tightly closed in a cool area away from sunlight or heat sources.
<b>Other Advice</b>	No other specific advice available.

### 7.3 Specific End Use(s)

**Specific End Use(s)**

No specific end uses are advised. The products supplied are for research purposes only.

## 8. Exposure Controls / Personal Protection

### 8.1 Control Parameters

Control Parameters	No data available.
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### 8.2 Exposure Controls

Engineering Measures	Use only under a chemical fume hood ensuring adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.
Face Protection	Wear tightly fitting safety goggles which adhere to European standard EN 166. Ensure eye bath is to hand.
Hand Protection	Handle with impermeable gloves. Inspect gloves before use. Gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Skin Protection	Wear appropriate protective clothing ensuring all skin is covered. Wear safety shoes that meet at least S1 standards. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory Protection	Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under normal use conditions.
Hygiene Measures	Ensure hair or skin particles cannot enter the chemical container.
Environment Exposure Controls	Avoid discharge into the environment, see section 6.2.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

a) State	Liquid
b) Colour	No data available.
c) Odour	Mild
d) Melting Point / Freezing Point	<-79°C
e) Initial Boiling point or Boiling range	114.0°C
f) Flammability	No data available.
g) Upper / Lower Flammability or Explosion Limits	No data available.
h) Flash Point	129°C

i) Auto Ignition Temperature	245°C
j) Decomposition Temperature	300
k) pH	No data available.
l) Viscosity	No data available.
m) Solubility	0.85g/L at 20°C in Water
n) Partition Coefficient	4.6 at 23°C
o) Vapour Pressure	0.3 Pa at 20°C
p) Relative Density	1g/cm³ at 20°C
q) Vapour Density	No data available.
r) Appearance	Clear to straw liquid

## 9.2 Other Safety Information

Other Information	No data available.
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## 10. Stability and Reactivity

### 10.1 Reactivity

Reactivity	No known reactivity, based on information available.
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### 10.2 Stability

Stability	Stable under recommended storage conditions.
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### 10.3 Possibility of Hazardous Reactions

Possibility of Hazardous Reactions	None under normal storage conditions.
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### 10.4 Conditions to Avoid

Conditions to Avoid	Heat, sparks, open flames, sources of ignition. Exposure to moisture.
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### 10.5 Incompatible Materials

Incompatible Materials	Strong oxidizing agents.
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### 10.6 Hazardous Decomposition Products

Hazardous Decomposition Products	No data available.
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## 11. Toxicology Information

### 11.1 Information on Hazard Classes, as defined in Regulation (EC) No. 1271/2008

Acute Toxicity	No toxicological data available for this product.
Skin Corrosion / Irritation	No Toxicology data available for this product.
Serious Eye Damage / Irritation	No Toxicology data available for this product.
Respiratory or Skin Sensitisation	No Toxicology data available for this product.
Germ Cell Mutagenicity	No Toxicology data available for this product.

<b>Carcinogenicity</b>	No Toxicology data available for this product.
<b>Reproductive Toxicity</b>	No Toxicology data available for this product.
<b>STOT-single Exposure</b>	No Toxicology data available for this product.
<b>STOT-repeated Exposure</b>	No Toxicology data available for this product.
<b>Aspiration Hazard</b>	No Toxicology data available for this product.

## **11.2 Information about Other Hazards**

<b>Endocrine Disrupting Properties</b>	Avoid release to the environment.
<b>Addition Toxicology Information</b>	No Toxicology data available for this product.

## **12. Ecological Information**

### **12.1 Toxicity**

<b>Toxicity</b>	Toxicity to fish: Cyprinus carpio LC50 - 42.3mg/l/96 h Toxicity to aquatic invertebrates: Daphnia magna EC50 - 58mg/l/48 h Toxicity to aquatic algae and cyanobacteria: Pseudokirchnerella subcapitata EC50 - 36mg/l/72 h
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### **12.2 Persistence and Degradability**

<b>Persistence and Degradability</b>	No Ecological data available for this product.
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### **12.3 Bio-Accumulative Potential**

<b>Bio-Accumulative Potential</b>	No Ecological data available for this product.
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### **12.4 Mobility in Soil**

<b>Mobility in Soil</b>	Log Pow: 4.6 at 23°C
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### **12.5 Results of PBT and vPvB assessment**

<b>Results of PBT and vPvB assessment</b>	No Ecological data available for this product.
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### **12.6 Endocrine Disrupting Properties**

<b>Endocrine Disrupting Properties</b>	Avoid release to the environment.
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### **12.7 Other Adverse Effects**

<b>Other Adverse Effects</b>	
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## **13. Disposal Considerations**

### **13.1 Waste Treatment Methods**

<b>Disposal Operations</b>	Ensure product is disposed of by licensed waste carriers.
<b>Disposal of Packaging</b>	Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be recyclable if not contaminated.

## **14. Transport Information**

## 14.1 UN Number

IATA UN Number	No data available.	ADR UN Number	No data available.	IMDG UN Number	No data available.
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## 14.2 Official UN Shipping Name

IATA Proper Shipping Name	(2-(3,4-Epoxy)cyclohexyl)-ethyltriethoxysilane)	ADR Proper Shipping Name	Non Hazardous For Transport (2-(3,4-Epoxy)cyclohexyl)-ethyltriethoxysilane)	IMDG Proper Shipping Name	(2-(3,4-Epoxy)cyclohexyl)-ethyltriethoxysilane)
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## 14.3 Hazard classes for transport purposes

IATA Hazard Class	No data available.	ADR Hazard Class	No data available.	IMDG Hazard Class	No data available.
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## 14.4 Packing Group

IATA Packing Group	No data available.	ADR Packing Group	No data available.	IMDG Packing Group	No data available.
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## 14.5 Environmental Hazards

IATA Environmental Hazards	No data available.	ADR Environmental Hazards	No data available.	IMDG Environmental Hazards	No data available.
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## 14.6 Special Precautions

No Information Available

## 14.7 Bulk Maritime Transport in accordance with IMO Instructions

IATA Sub Class	No data available.	ADR Sub Class	No data available.	IMDG Sub Class	No data available.
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## 15. Regulatory Information

### 15.1 Health, safety and environmental regulations/legislation specific to the substance or mixture

Regulatory Information As far as Fluorotech is aware, there are no further regulations controlling this product.

### 15.2 Chemical Safety Assessment

Chemical Safety Assessment There is no chemical safety assessment available for this product.

## 16. Other Information

### Information Not Covered in Other Sections

## Other Sections

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road (European agreement on the international transport of dangerous goods by road). RID: International Regulations concerning the Transport of Dangerous Goods by Rail (Regulations regarding the international transport of dangerous goods by rail). IMDG: International Maritime Code for Dangerous Goods. IATA: International Air Transport Association. IATA-DGR: Dangerous Goods Regulations from International Air Transport Association. ICAO: International Civil Aviation Organisation. ICAO-TI: Technical instructions from ICAO. GHS: Globally Harmonized System for Classification and Labelling of Chemicals. CAS: Chemical Abstracts Service

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## Other Information

**Revision**

1

**Date Modified**

19/12/2024 18:46:00

**Disclaimer**

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physico-chemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user. This SDS adheres to Regulation (EC) No 1907/2006, and as of 13th April 2023, also conforms to EU Regulation 2020/878.